

REMARKS

The office action of February 19, 2004 has been carefully considered.

It is noted that claim 1 is rejected under 35 U.S.C. 112, first paragraph.

Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) over the combined teachings of Niskanen et al. and Spatafora.

Claims 1-5 are rejected under 35 U.S.C. 103(a) over the prior art discussed in the specification in view of the patent to Bartholomew.

Claims 1-5 are rejected under 35 U.S.C. 103(a) over the prior art applied to claims 1-5 above, and further in view of either Spatafora or the patent to Carroll.

Applicant respectfully submits that the specification is enabling for the invention as recited in claim 1. The Examiner takes the position that a single valve cannot prevent fluid loss

from the roller by itself. The Examiner further argues that if the outlet hose is ruptured the inlet pipe will continue to pump fluid through the roller unabated.

Relative to a heat exchanger in a roller, the inlet and return flow are connected or dependent upon one another. All the fluid carrying lines in the roller are completely filled so that when a valve is closed on one side even if the other side is open no fluid can flow out of the roller until air enters the roller to allow the fluid to flow from the open end. The present invention deals with communicating pipes in which, as a rule, when one end is closed no or only a small remainder quantity of fluid escapes from the open end.

Based on the above principles, the heat exchanger functions even when only one valve is present.

In view of these considerations it is respectfully submitted that the rejection of claim 1 under 35 U.S.C. 112, first paragraph is overcome and should be withdrawn.

The presently claimed invention defines a heat exchanger with

a pressure dependent security/shut-off valve. Of importance is that the valve is activated during operation of the roller in response to an undesired drop in system pressure. If an inlet line breaks during the operation of the heat exchanger the undesired drop in pressure mentioned above results. In this situation the valve closes and the fluid in the pipes of the heat exchanger can no longer escape. It is respectfully submitted that the claims presently on file differ essentially and in an unobvious, highly advantageous manner from the constructions disclosed in the references.

Turning now to the references, and particularly to the patent to Niskanen et al., it can be seen that this patent discloses a method for heating a roll and a heatable roll. There is no teaching in this reference of any type of valve.

The reference to Spatafora discloses a gumming device that is formed by a roller mounted in a housing or bearings, wherein a cooling medium flows through the roller. However, the valve arranged in the roller is always in the open position. Only a shoulder 37 in the frame 2 controls the valve. In other words, the valve is only closed when the roller is taken out of the

frame. If an accident should happen and the connection of the rotating roller should be torn off, the shoulder 37 would continue to hold the valve 55 in the open position. The contents of the roller would flow out. Consequently, the reference to Spotafora does not disclose or suggest a valve as it is set forth in the claims of the present application which is operated in accordance to pressure.

The Examiner combined these references in determining that claims 1-3 and 5 would be unpatentable over such a combination. Applicant respectfully submits that the combination of these references does not teach a heat exchanger having a roller with a valve that is automatically closed in response to an undesired drop in system pressure, as in the presently claimed invention.

In view of these considerations it is respectfully submitted that the rejection of claims 1-3 and 5 under 35 U.S.C. 103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

The patent to Bartholomew discloses an automotive fuel filler system. Contrary to the Examiner's arguments, Applicant submits

that this patent has nothing to do with a thermal roller as in the present invention. Simply because the present invention and the reference both try to prevent a fire hazard does not mean that they are in analogous arts. The reference must provide some teaching which would motivate those skilled in the art to make the combination argued by the Examiner. Applicant can find nothing in the teachings of Bartholomew that makes any suggestion or provides any motivation for making any changes in a thermal roller. The reference only deals with an automotive application that has nothing to do with thermal rollers. Applicant requests that the Examiner clearly indicate where the reference provides the motivation for combination with the references mentioned in the specification of the present application. Simply because both the reference and the present application address fire prevention, the situations that they are dealing with are completely different.

In summary, Bartholomew discloses a fuel filling system which includes an automatically closing valve. However, such automatically closing valves were known in the art prior to the filing dates of the reference and of the present application. It was clearly not obvious to use such valves in thermal rollers and Bartholomew provides no motivation to do so. Certainly, those skilled in the art would not look to a fuel filling system for

automobiles to find a solution for a valve as it is used in accordance with the present invention. The only possible way to make such a combination is by impermissible hindsight reconstruction of the invention based upon the teachings of the present application. Applicant submits that it is the Examiner's burden in making his rejection to provide support for why the references are combinable.

In view of these considerations it is respectfully submitted that the rejection of claims 1-5 under 35 U.S.C. 103(a) over a combination of Bartholomew with the references mentioned in the specification is overcome and should be withdrawn.

The patent to Carroll discloses a pressure lubricated track tractor roller. An inlet 33 is used for a one-time filling of the hydraulic fluid. A valve like that normally used with car tires is used to prevent the medium from escaping. This reference also does not have any teaching concerning a thermal roller as dealt with in the presently claimed invention.

The Examiner combined either Spatafora or Carroll with Bartholomew and the references discussed in the specification of the present application in rejecting claims 1-5 as being unpatentable. It is respectfully submitted that the teachings of

theses many references do not suggest or motivate one skilled in the art to make the combination argued by the Examiner. The valve of Bartholomew is normally closed. The valve is only opened by the force of entering fuel for filling the tank. The fact that such valves have existed for decades and have not previously been used in rollers as in the present invention is evidence that the present invention is unique and not obvious. In the references the valve is normally closed whereas in the present invention the valve is not used unless the connection hoses to the roller are torn off, at which point the valve closes in response to the change in pressure. Spatafora does not teach a valve arranged in a roller and operative to close when an accident occurs. In Spatafora the valve is only closed manually during regular removal of the roller. One skilled in the art would not combine Spatafora with Bartholomew since the valve of one is normally closed and the valve of the other is normally open. Thus the valves are not interchangeable and would render the disclosed devices inoperative. If one were to combine the valve of Spatafora with Bartholomew the valve to the fuel tank would be normally open and would allow fuel to leak out. The valve would only be closed when the gas tank is removed. If the valve of Bartholomew is used in Spatafora, the valve would be normally closed and would not allow the fluid to flow during operation of the roller. Thus, it is respectfully submitted that the

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combinations of these references that are relied upon by the Examiner do not teach the present invention.

In view of these considerations it is respectfully submitted that the rejection of claims 1-5 under 35 U.S.C. 103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

Reconsideration and allowance of the present application are respectfully requested.

Any additional fees or charges required at this time in connection with this application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,

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